CLAIMS AMENDMENTS

Please amend Claims 1, 6, 11 and 16, and cancel Claims 5, 9, 14, 19 and 21 as indicated:

1. (currently amended)   A method of handling a memory exhaustion condition in a data processing system having first and second regions of physical memory, said method comprising:

detecting a memory exhaustion condition in said first region of physical memory while said second region of physical memory is mirroring at least part of said first region;

in response to said memory exhaustion condition, at least partially deactivating memory mirroring between said first and second regions; [[and]]

augmenting said first region with at least part of said second region, such that said memory exhaustion condition is eliminated;

determining that memory needs have diminished after said at least partially deactivating memory mirroring between said first and second regions; and

in response to said determining that memory needs have diminished, at least partially reactivating mirroring.

2. (original)   The method of Claim 1, said data processing system compressing real memory into said first region of physical memory, wherein:

said step of detecting a memory exhaustion condition comprises determining that said first region lacks sufficient available capacity to accommodate current requirements for real memory; and

said step of augmenting said first region comprises compressing at least part of said required real memory into said at least part of said second region.

3. (original)   The method of Claim 2, further comprising:

in response to said memory exhaustion condition, recording data relating to said memory exhaustion condition; and

subsequently utilizing said data to set a compression ratio for memory compression.

4. (original)   The method of Claim 1, said data processing system having a mirror mode controller that directs a memory access to said first region or said second region in accordance with one or more mirror mode bits, wherein:

said step of augmenting said first region comprises modifying at least one of said one or more mirror mode bits.

5. (cancelled)

6. (currently amended)   A data processing system comprising:

first and second regions of physical memory;

detection logic that detects a memory exhaustion condition in said first region of physical memory while said second region of physical memory is mirroring at least part of said first region; [[and]]

a mirror mode controller that directs a memory access to said first region or said second region in accordance with one or more mirror mode bits; and

configuration logic that, responsive to said memory exhaustion condition, at least partially deactivates memory mirroring between said first and second regions and augments said first region with at least part of said second region, such that said memory exhaustion condition is eliminated, and wherein said configuration logic augments said first region by modifying at least one of said one or more mirror mode bits.

7. (original)   The data processing system of Claim 6, wherein:
said data processing system compresses real memory into said first region of physical memory;

said detection logic comprises a memory controller that detects said memory exhaustion condition by determining that said first region lacks sufficient available capacity to accommodate current requirements for real memory; and

said configuration logic comprises a memory manager that augments said first region by configuring said memory controller to compress at least part of said real memory into said at least part of said second region.

8. (original)   The data processing system of Claim 7, wherein:

in response to said memory exhaustion condition, said memory manager records data relating to said memory exhaustion condition; and

said memory manager subsequently utilizes said data to set a compression ratio for memory compression.

9. (cancelled)

10. (previously cancelled)

11. (currently amended)   A program product that handles a memory exhaustion condition in a data processing system having a memory controller, [[and]] first and second regions of physical memory, and a mirror mode controller that directs a memory access to said first region or said second region in accordance with one or more mirror mode bits, said program product comprising:

a computer usable medium encoding a memory manager;

deactivation instructions within said memory manager that at least partially deactivate memory mirroring between said first and second regions in response to a memory exhaustion condition arising in said first region of said physical memory while said second region of said physical memory is mirroring at least part of said first region; and

augmentation instructions within said memory manager that cause said memory controller to augment said first region with at least part of said second region, such that said memory exhaustion condition is eliminated, and wherein said memory manager augments said first region by modifying at least one of said one or more mirror mode bits.

12. (original) The program product of Claim 11, said data processing system compressing real memory into said first region of physical memory, and said memory controller detecting said memory exhaustion condition by determining that said first region lacks sufficient available capacity to accommodate current requirements for real memory, wherein:

said memory manager augments said first region by configuring said memory controller to compress at least part of said real memory into said at least part of said second region.

13. (original) The program product of Claim 12, wherein:

in response to said memory exhaustion condition, said memory manager records data relating to said memory exhaustion condition; and

said memory manager subsequently utilizes said data to set a compression ratio for memory compression.

14. (cancelled)

15. (previously presented)   The program product of Claim 11, wherein:

after memory mirroring has been at least partially deactivated, said memory manager determines that memory needs have diminished; and

in response to said memory manager determining that memory needs have diminished, said memory manager at least partially reactivates mirroring.

16. (currently amended)   A memory management system that handles a memory exhaustion condition in a data processing system having first and second regions of physical memory, said memory management system comprising:

detection logic that detects a memory exhaustion condition in said first region of said physical memory while said second region or said physical memory is mirroring at least part of said first region; [[and]]

configuration logic that, responsive to said memory exhaustion condition, at least partially deactivates memory mirroring between said first and second regions and augments said first region with at least part of said second region, such that said memory exhaustion condition is eliminated; and

a mirror mode controller that directs a memory access to said first region or said second region in accordance with one or more mirror mode bits; wherein said configuration logic augments said first region by modifying at least one of said one or more mirror mode bits.

17. (original) The memory management system of Claim 16, said data processing system compressing real memory into said first region of physical memory, wherein:

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said detection logic comprises a memory controller that detects said memory exhaustion condition by determining that said first region lacks sufficient available capacity to accommodate current requirements for real memory; and

said configuration logic comprises a memory manager that augments said first region by configuring said memory controller to compress at least part of said real memory into said at least part of said second region.

18. (original) The memory management system of Claim 17, wherein:

in response to said memory exhaustion condition, said memory manager records data relating to said memory exhaustion condition; and

said memory manager subsequently utilizes said data to set a compression ratio for memory compression.

19. (cancelled)

20. (original) The memory management system of Claim 16, wherein:

after memory mirroring has been at least partially deactivated, said configuration logic determines that memory needs have diminished; and

in response to said configuration logic determining that memory needs have diminished, said configuration logic at least partially reactivates mirroring.

21. (cancelled)

22. (previously presented)   A data processing system comprising:

first and second regions of physical memory;

detection logic that detects a memory exhaustion condition while said second region is mirroring at least part of said first region; and

configuration logic that, responsive to said memory exhaustion condition, at least partially deactivates memory mirroring between said first and second regions and augments said first region with at least part of said second region, such that said memory exhaustion condition is eliminated, wherein after memory mirroring has been at least partially deactivated, said

configuration logic determines that memory needs have diminished, and wherein in response to said configuration logic determining that memory needs have diminished, said configuration logic at least partially reactivates mirroring.

23. (previously presented)   A method comprising:

detecting a memory exhaustion condition of a first region of physical memory while a second region of physical memory is mirroring at least part of said first region of physical memory; and

in response to said memory exhaustion condition, at least partially deactivating memory mirroring between said first and second regions of physical memory and augmenting said first region with at least part of said second region, such that said memory exhaustion condition is eliminated, wherein after memory mirroring has been at least partially deactivated, determining that memory needs have diminished, and wherein in response to determining that memory needs have diminished, at least partially reactivating mirroring.

24. (previously presented)   A computer program product, residing on a computer usable medium, comprising:

program code for detecting a memory exhaustion condition of a first region of physical memory while a second region of physical memory is mirroring at least part of said first region of physical memory; and

program code for in response to said memory exhaustion condition, at least partially deactivating memory mirroring between said first and second regions of physical memory and augmenting said first region with at least part of said second region, such that said memory exhaustion condition is eliminated, wherein after memory mirroring has been at least partially deactivated, determining that memory needs have diminished, and wherein in response to determining that memory needs have diminished, at least partially reactivating mirroring